REMARKS/ARGUMENTS

Claims 20, 24, 35, 37, 50, 51, and 53-55 are currently pending in this application, in which claim 37 is independent.

Applicant notes, as indicated above, that the amendments to the claims have been made in response to the Advisory Action dated June 22, 2007, in view of the After-Final Response filed April 23, 2007, and further in view of the Request for Continued Examination (RCE) filed June 25, 2007.

In particular, claim 37 is amended and claims 53-55 are added. Claims 1-19, 21-23, 25-34, 36, 38-49, and 52 were previously canceled.

Support for the amendment to claim 37 can be found in the specification at page 3, lines 3-6, page 5, lines 3-5, page 7, lines 23-26, and page 11, lines 4-5, as originally filed.

Support for new claim 53 can be found in the specification at page 3, lines 22-24, as originally filed.

Support for new claims 54-55 can be found in the specification at page 5, lines 1-9, page 9, lines 9-23, and page 11, lines 4-11, as originally filed.

No new matter has been added.

Accordingly, entry of the amendment is kindly requested. Reconsideration of the claimed invention is requested in view of the following remarks.

Rejection over Hartman in view of Li

The rejection of claims 37, 50, 30, 35, and 24 under 35 U.S.C. § 103(a) as obvious over Hartman et al. (US 2001/0036052) and Li et al. (US 2002/0022278) is traversed for reasons of record and obviated by amendment, as discussed below. The remarks in the After-Final Response dated April 23, 2007 are incorporated herein by reference.

In particular, the references, alone or in combination, do not describe or suggest the claimed dielectric thin film.

Specifically, the claimed invention has been further amended to recite a dielectric thin film with relative dielectric constant greater than 10 *consisting essentially of*:

a solution or dispersion of surfactant-coated nanoparticles in an organic solvent,

wherein said organic solvent is evaporated after heating and depositing said nanoparticles on a substrate to form said dielectric thin film,

wherein said nanoparticles have a diameter size in a range between 2 nm and about 20 nm, and a crystalline structure having a relatively narrow grain-sized distribution,

wherein said narrow grain-sized distribution has a standard deviation selected from the group consisting of: less than 15%, less than 10% and less than 5%.

As described in the present specification, e.g., at page 9, lines 11-12, coating the particles in such a manner prevents the particles from aggregating. Moreover, the solution or dispersion phase of the particles, e.g., as mentioned in the present specification at page 11, lines 24-27, which is removed after heating, results in a condensed/closely packed arrangement of the particles (i.e., the film) on a substrate.

By contrast, the films described in Li et al. are formed merely by mixing $[Pb(thd)_2]$ and $[Ge(ETO)_4]$ to form a PGO mixture, dissolving the mixture with a solvent, heating the precursor solution with a precursor vaporizer, and creating a *precursor gas*, in which the *precursor gas* is decomposed on a wafer. (*See* paragraphs [0012] to [0021] of the reference). On the other hand, the dielectric layers of Hartman et al. are formed by combining *particle filler with resin*, the *particle containing resin mixture* is then coated onto a conductive metal layer, and then the particle containing resin is dried to remove solvent from the resin. (*See* para. [0026] and Example 1 of the reference).

As such, the references clearly do not recite or provide any indication of a dielectric thin film consisting essentially of the features of the claimed invention.

Therefore, maintaining the rejection is improper. Accordingly, withdrawal of the rejection is requested.

Rejection over Hartman in view of Li, and Further in view of Constantino

The rejection of claim 51under 35 U.S.C. § 103(a) as obvious over Hartman et al. in view of Li et al., and further in view of Constantino et al. (US 2001/0048969) is traversed for reasons of record and obviated by amendment, as discussed above.

In particular, Constantino et al. also does not describe or suggest the claimed invention, and does not cure the deficiencies of Hartman et al. and Li et al. Specifically, as previously noted, Constantino et al. does not even describe or relate to substrate layers or films described in

the references. Further, it is noted that while Constantino et al. generally describes *coated* particles, the reference does not indicate a dielectric thin film consisting essentially of the features of the claimed invention.

Therefore, maintaining the rejection is improper. Accordingly, withdrawal of the rejection is requested.

In view of the above remarks, Applicants believe the pending application is in condition for allowance.

The Examiner is invited to contact the undersigned at the number listed below to further advance allowance of the pending application.

Applicants believe no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 50-0510, under Order No. 20140-00343-US2 from which the undersigned is authorized to draw.

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Respectfully submitted,

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